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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,979	02/11/2002	Gary Rensberger	003797.00219	8669

28319 7590 07/26/2004

BANNER & WITCOFF LTD.,
ATTORNEYS FOR MICROSOFT
1001 G STREET , N.W.
ELEVENTH STREET
WASHINGTON, DC 20001-4597

EXAMINER	
LIU, MING HUN	
ART UNIT	**PAPER NUMBER**
2675	6

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/068,979	Applicant(s) RENSBERGER, GARY	
	Examiner Ming-Hun Liu	Art Unit 2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6, 8, and 23-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 8, and 23-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 23 is objected to because in line 8, "original movement amount" should be replaced with "original movement amounts" to match the antecedent.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Gaugham and US Patent 5,185,597 to Pappas et al.

In reference to claims 1 and 3, Gaugham discloses a method for smoothing cursor movement (column 3, lines 64-65) where the pointing device receives a movement signal divides the signal into smaller, predetermined amounts, of movement signals (column 3, lines 60-64) and reports the smaller movement signals at dedicated reporting time (column 3, lines 30-36). It can be seen from figure 5 that the displacement data is given in two directions namely X and Y.

Gaugham however, does not teach that the amount of time between reporting times is no larger than the refresh rate of the display.

This claimed limitation is one that is obvious if no inherent to the cursor art. As Pappas teaches in the background of the inventions section, in order remedy the flicker of the cursor, cursor data need be displayed in synchronism with the refresh rate of the display system (column

2, lines 35-45). Therefore the information reporting time obviously would have to be shorter than the refresh rate. Inherently, information must be supplied prior to the use of the information, a fact that Gaugham is silent on. Without synchronizing the cursor and display refresh rates, a smooth cursor movement that Gaugham wishes to achieve would be impossible.

In reference to claims 2, it can be seen from figure 5 that there are two reporting steps for the movement receiving step.

In reference to claim 4, Gaugham does not explicitly state that the predetermined division of movements need to be at least three, however he does disclose a "smaller number" which does include three. As seen from figure 5, Gaugham does teach the divisions of two smaller movement divisions. It would have been obvious to one skilled in the art that understands the spirit of this invention to adopt a number of divisions where the movement of the cursor remains smooth.

4. Claims 5, 6, 8 and 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaugham in view of Pappas and further in view of US Patent 5,327,528 to Hidaka et al.

In reference to claims 5, 6 and 8 Gaugham teaches that movements will be divided into smaller displacement movements (column 3, lines 61-62) but does not outline in detail the steps in producing the divisions.

Despite Gaugham omission, it would have been obvious to one skilled in the art to understand how to divide a larger measurement into smaller measurements. As exemplified by Hidaka on column 3, lines 30-37 it can be seen that movement division algorithms are rather common and several dividing algorithms exist within the art.

The limitations described in the claims resemble basic subtraction instructions that are commonly known and can be easily implemented by adding an arithmetic unit.

It would have been obvious to one skilled in the art to implement the subtracting algorithm suggested by the applicant, as the algorithm is commonly known method of producing small divisions of larger values.

Specifically with claim 8, Hidaka's division method does include a predefined value (n) and the first portion (1/n) is smaller than the subsequent (n-1/n) portion.

Claims 23-27 and 29 are rejected on grounds presented in the rejection of claim 1. As shown in column 3, lines 60-65 of Gaughan, it is apparent that Gaughan's invention partitions the movement into smaller sections. Gaughan does not specifically state that the partitions must be of the same size or different size, however as demonstrated by Hidaka, the partitions can be made in several different ways and sizes.

As for claim 28, the claim is rejected on grounds similar to the one presented in the rejection of claim 1. Gaughan, however does not explicitly state that a USB output be configured to output the second data. Gaughan's invention includes an IR receiver (item 34) that outputs the data to the processor (column 2, line 59) without specifying the connection. There is no disclosed criticality as to why the communication must be conducted through a USB connection. As ones skilled in the art understands, USB connections are commonly used to connect different peripheries to computer systems. It would have been obvious to one skilled in the art to use USB connections to promote transferability between systems.

Response to Arguments

5. Applicant's arguments filed 6/7/2004 have been fully considered but they are not persuasive.

In response to arguments concerning the rejection of claim 1, it is unclear as to what exactly is included in the limitation of "time between report times". As seen from figure 5, the amount of time between report times are 4.15 ms, a value that is clearly shorter than the refresh rates of approximately 60 Hz. The claim limitation in its current form is too broad, leaving the mean behind the specification of "amount of time between report times" unclear and anticipated by the Gaughan.

In response to arguments traversing the rejection of claim 23, it is clear from Gaughan's disclosure that his invention includes a "processor configured to partition the original movement into smaller movements". This fact is apparent from Gaughan's disclosure on column 3, line 60-62 where he states "to avoid jumpy movements of the cursor, the invention... divides the X and Y displacement movements into smaller number of movements." It is clear that Gaughan teaches original movement size division into smaller sizes.

In reference to arguments traversing the rejection of claim 27, as shown in figure 5 of Gaughan, the report times are asynchronous to the refresh rate as the report times for sections (A), (B) and (C) are different.

In reference to arguments concerning the rejection of claim 28, the examiner stands by his rejection that USB ports are extremely common bus communication ports known to ones skilled in the art. The applicant argues on page 8, lines 6-11 are not persuasive because the

claims are not constructed in a fashion that limits the processor and USB to be on the same physical unit.

In reference to arguments concerning the rejection of claim 29, by referring to figure 5 of Gaughan, it can be seen that there are three distinct intervals. The first interval coincides with (A)+(B)+(C), the original movement signal. The different partitions are the smaller signal, namely (A), (B) and (C). And lastly the refresh rate is at a different rate from the smaller signal intervals.

In conclusion, the arguments stated by the applicants are on issues that are not clearly represented in the claim recitations. The claims are too broad and can be loosely interpreted.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is 703-305-8488. The examiner can normally be reached on Mon-Fri.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ming-Hun Liu

DENNIS-DOON CHOW
PRIMARY EXAMINER